

1. IDENTIFICATION

Product Identifier

Product Name IRON SULFIDE DISSOLVER OSP-1

Recommended use of the chemical and restrictions on use

Recommended use Iron sulfide scale mitigation
Restrictions on use For industrial use only

Supplier details

West Penetone Inc.
 11411-160 Street
 Edmonton, AB,
 T5M3T7
 Tel: 780-454-3919

Emergency Telephone Number

Canutec (613)-996-6666

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity, inhalation – vapors, mist	Category 4
Serious eye damage/eye irritation	Category 2A
Skin sensitizer	Category 1
Reproductive toxicity	Category 1B
Specific target organ toxicity – single exposure	Category 3
Specific target organ toxicity – repeated exposure	Category 2
Hazardous to the aquatic environment, acute hazard	Category 1

Label Elements

DANGER

Hazard Statements

Harmful if inhaled.
 Causes serious eye irritation.
 May cause an allergic skin reaction.
 May damage fertility or the unborn child <birth defects in laboratory animals>.
 May cause respiratory irritation.
 May cause damage to organs <kidney, liver> through prolonged or repeated exposure.
 Very toxic to aquatic life.



Precautionary Statements - Prevention

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash face, hands and any exposed skin thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: get medical advice/attention.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: get medical advice/attention. Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

IF exposed or concerned: get medical advice/attention.

Collect spillage.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant according to local, provincial/federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Bis[tetrakis(hydroxymethyl)phosphonium] sulfate	55566-30-8	10-30
alcohols, C9-C11, ethoxylated	68439-46-3	7-13
DETA-phosphonate	15822-60-8	1-5
lauramine oxide	1643-20-5	1-5
ammonium chloride	12125-02-9	0.1-1.0

4. FIRST AID MEASURES

Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.
Skin contact	Wash with plenty of water. If skin irritation or rash occurs: get medical advice/attention. Take off contaminated clothing and wash it before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Ingestion	Do NOT induce vomiting. Drink 1 or 2 glasses of water. Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Contact with eyes may cause serious irritation, discomfort or pain, excess blinking and tear production with marked excess redness and swelling of the conjunctiva, and possible corneal injury. Contact with skin may cause irritation with local redness or an allergic skin reaction with prolonged or repeated exposure. Inhalation of mist/vapors/spray may cause respiratory tract irritation leading to a temporary burning sensation of the nose and throat, coughing, and difficulty breathing. Excessive exposure may aggravate preexisting asthma and other respiratory disorders. Ingestion may cause irritation or a burning sensation of the mouth and throat, nausea, vomiting, abdominal pain and damage to the gastrointestinal tract. See Section 2 for possible delayed effects.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed including oxides of carbon, phosphorous, and sulfur and other toxic or irritating compounds.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Material supports combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Use personal protective equipment. Keep unnecessary and unprotected personnel from entering the area.

Environmental Precautions

Avoid discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Contain and solidify with inert absorbent material. Keep in suitable, closed containers for disposal. For large spills, stop flow of material, prevent product from entering drains, and pump off product where this is without risk and possible. Proceed as above.

7. HANDLING AND STORAGE

Precautions for Safe Handling**Handling**

Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated contact with skin. Avoid inhalation of mist/vapors/spray. Keep containers closed when not in use.

Conditions for safe storage, including any incompatibilities**Storage**

Keep containers tightly closed in a dry, cool and well-ventilated place away from incompatible materials.

Incompatible Materials

Strong oxidizing, reducing or alkaline materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Only constituents with exposure limits are listed. Any constituent not listed has no known exposure limit.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Bis[tetrakis(hydroxymethyl)phosphonium] sulfate 55566-30-8	TWA: 2 mg/m ³	Not available	Not available
ammonium chloride 12125-02-9	TWA: 10 mg/m ³ – fume STEL: 20 mg/m ³ – fume	Not available	Not available

Appropriate engineering controls**Engineering Controls**

Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be made available when handling this product.

Individual protection measures, such as personal protective equipment**Eye/face Protection**

Safety glasses with side shields or goggles or face shield.

Skin and body protection

Wear protective gloves and protective clothing.

Respiratory Protection	Respiratory protection if ventilation is inadequate or in case of vapor/mist/aerosol release.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Wash soiled clothing immediately.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Clear, yellow liquid	VAPOR PRESSURE, mm Hg AT 25°C : Not available
ODOR Acidic	VAPOR DENSITY (Air = 1) : Not available
ODOR THRESHOLD : Not applicable	RELATIVE DENSITY AT 20°C: 1.090
pH : 4.0-5.0	SOLUBILITY IN WATER : Complete
MELTING POINT / FREEZING POINT : Not available	PARTITION COEFFICIENT, N-OCTANOL/WATER : Not available
BOILING POINT/BOILING RANGE : Not available	AUTO-IGNITION TEMPERATURE : Not available
FLASH POINT : None	DECOMPOSITION TEMPERATURE: ≥ 160°C
EVAPORATION RATE, water = 1 : 1	VISCOSITY: Not available
FLAMMABILITY (SOLID, GAS): Not applicable	FLAMMABLE LIMITS : UPPER: Not applicable LOWER : Not applicable

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Conditions to Avoid

Store away from incompatible materials. Temperatures above 160°C. High pH.

Chemical Stability

Stable under normal conditions.

Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Incompatible Materials

Strong oxidizing, reducing or alkaline materials.

Hazardous decomposition products

Oxides of carbon, phosphorous, and sulfur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

ATE_{mix} – LD50 oral – approx. ≥ 2355 mg/kg (rat), LD50 dermal – approx. > 6092 mg/kg (rat), LC50 inhalation-mist – approx. 2 mg/L – 4 h (rat)

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Bis[tetrakis(hydroxymethyl)phosphonium] sulfate 55566-30-8	248-575 mg/kg (rat)	>2000 mg/kg (rat)	5.55 mg/L – 4 h, vapor (rat) 0.59 mg/L – 4 h mist (rat)
alcohols, C9-C11, ethoxylated 68439-46-3	>2000 mg/kg (rat)	>2000 mg/kg (rabbit)	Not listed
DETA-phosphonate 15827-60-8	7180 mg/kg (rat)	7940 mg/kg (rabbit)	Not listed
lauramine oxide 1643-20-5	>1065 mg/kg (rat)	>2000 mg/kg (rabbit)	Not listed
ammonium chloride 12125-02-9	1650 mg/kg (rat)	Not listed	Not listed

Information on likely sources of exposure

Serious eye damage/irritation

May cause severe eye irritation and corneal injury.

Skin corrosion/irritation

Brief contact essentially nonirritating. Repeated contact may cause sensitization.

Ingestion

May be harmful if swallowed and irritate gastrointestinal tract.

Inhalation

Spray mist may cause irritation or burns to respiratory tract.

Delayed and immediate effects and also chronic effects from short and long-term exposure

Respiratory or skin sensitization	CAS 55566-30-8 - Has caused allergic skin reactions when tested in guinea pigs.
Germ cell mutagenicity	None known.
Carcinogenicity	None known.
Reproductive toxicity	CAS 55566-30-8 - Has caused birth defects in laboratory animals.
STOT - single exposure	No information available.
STOT-repeated exposure	CAS 55566-30-8 - In animals, effects have been reported on kidneys and liver.
Aspiration Hazard	None known.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms include eye irritation. May cause asthma-like symptoms. Respiratory symptoms, including pulmonary edema, may be delayed. See Section 2 for delayed effects.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Chemical Name	Fish	Waterflea	Algae
Bis[tetrakis(hydroxymethyl)phosphonium] sulfate 55566-30-8	94-119 mg/L: 96 h oncorhynchus mykiss LC50	15-19.4 mg/L: 48 h daphnia magna EC50	0.20 mg/L: 96 h green algae EC50
alcohols, C9-C11, ethoxylated 68439-46-3	5-10 mg/L: 96 h LC50	5-10 mg/L: 48 h EC50	10-100 mg/L: 72 h EC50
DETA-phosphonate 15827-60-8	758 mg/L: 96 h fish LC50	242 mg/L: 48 h daphnia magna EC50	Not available
lauramine oxide 1643-20-5	2.67 mg/L: 96 h LC50	3.1 mg/L: 48 h Daphnia magna EC50	0.19 mg/L: 72 h EC50
ammonium chloride 12125-02-9	0.42-0.56 mg/L: 96 h oncorhynchus mykiss LC50	0.237-0.288 mg/L: 48 h Amer. lobster EC50	Not available

Persistence and degradability

Expected to be readily biodegradable and not persistent.

Bioaccumulative potential

Significant accumulation in organisms is not to be expected.

Mobility in soil

No information available

Other adverse effects

Do not release untreated in natural waters.

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method**

Dispose of in accordance with local regulations.

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION**TDG classification**

UN 2810, Toxic Liquid, Organic, N.O.S. (Bis[tetrakis(hydroxymethyl)phosphonium] sulfate), Class 6.1, PG III

15. REGULATORY INFORMATION

All ingredients are listed on the DSL

16. OTHER INFORMATION**Preparation Date**

3 November, 2016

Revision Date

not applicable

Revision Note

not applicable

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS